



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,540	12/04/2003	Masafumi Masuda	246232US90	5948
22850	7590	09/23/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			STEIN, JULIE E	
			ART UNIT	PAPER NUMBER
			2685	
DATE MAILED: 09/23/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/726,540	MASUDA ET AL.	
	Examiner	Art Unit	
	Julie E. Stein, Esq.	2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The disclosure is objected to because of the following informalities: In paragraph 2, “__information” should be “information” and in paragraph 6, on page 4, line 11, “same cases” should be “some cases”.

Appropriate correction is required.

Claim Objections

3. Claim 3 is objected to because of the following informalities: in the second clause, the “a” in “a neighbor cell information items” should be deleted. Appropriate correction is required.
4. Claim 5 is objected to because of the following informalities: It is unclear what “mounted channels” specifically means. The Examiner has interpreted this to mean the load or ability of a given base station to accept additional mobile stations in handover situations. Appropriate correction is required.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-2 and 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,119,005 to Smolik.

Smolik discloses all the elements/steps of independent claims 1 and 6, including a neighbor cell notifying apparatus/method for notifying a mobile station of predetermined information in a mobile communication network for implementing radio communication utilizing a plurality of cells between the mobile station and a base station (column 1, lines 14 to 31), the neighbor cell notifying apparatus/method comprising: cell information extracting means for extracting neighbor cell information items (e.g. pilot signal power) for specifying respective neighbor cells corresponding to each of said plurality of cells (column 6, lines 60 to 65); cell rank determining means for, based on the neighbor cell information items extracted, determining ranks of neighbor cell information items that the mobile station is to be notified of (column 7, line 35 to column 9, line 24), in favor of neighbor cell information items about neighbor cells common to a first cell and a second cell out of the plurality of cells (column 9, lines 25 to 45, discloses the use of round-trip delays to identify the base stations closest to the mobile subscriber, therefore it is inherent that a first and second cell would be identified); and cell information notifying means for notifying the mobile station of a predetermined number of neighbor cell information items among said neighbor cell information items on the basis of the ranks determined (column 1, lines 21 to 24 and column 9, lines 25 to 45, it is inherent in view of the disclosed information that the base station communicates the updated neighbor list including power/signal strength to the mobile station).

Smolik teaches all the elements/steps of independent claims 2 and 7, including a neighbor cell notifying apparatus/method for notifying a mobile station of predetermined information in a mobile communication network for implementing radio communication

Art Unit: 2685

utilizing a plurality of cells between the mobile station and a base station (column 1, lines 14 to 31), the neighbor cell notifying apparatus/method comprising: cell information extracting means for extracting neighbor cell information items (e.g. pilot signal power) for specifying respective neighbor cells corresponding to each of said plurality of cells (column 6, lines 60 to 65); cell rank determining means for determining ranks of neighbor cell information items that the mobile station is to be notified of (column 7, line 35 to column 9, line 24), based on the neighbor cell information items extracted and on priority information items preliminarily determined for the respective neighbor cells (column 7, lines 5 to 34, the power level of each pilot channel is identified and initially reviewed); and cell information notifying means for notifying the mobile station of a predetermined number of neighbor cell information items among said neighbor cell information items on the basis of the ranks determined (column 1, lines 21 to 24 and column 9, lines 25 to 45, it is inherent in view of the disclosed information that the base station communicates the updated neighbor list including the power/signal strength to the mobile station).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,119,005 to Smolik.

Smolik teaches all the elements of dependent claim 3, including wherein the cell rank determining means is configured to: delete a neighbor cell information items about one of neighbor cells common to a first cell and a second cell out of the plurality of cells, based on the neighbor cell information items extracted by the cell information extracting means (column 7, line 36 to column 9, line 24, it would have been obvious to one of ordinary skill in the art at the time the invention was made to understand that if the pilot strength measurements ranked the first or second cell low on the rank list, then they would be expunged if the maximum number of members of list members was exceeded as taught in column 8, lines 38 to 31); and determine the ranks of the neighbor cell information items that the mobile station is to be notified of, based on the neighbor cell information items after the deletion, and on the priority information items preliminary

Art Unit: 2685

determined for the respective neighbor cells (column 7, line 36 to column 8, line 41, this process is repeating).

9. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smolik in view of U.S. Patent Application Publication No. 2003/0190916 to Celedon et al.

Smolik teaches all the elements of dependent claims 4 and 5, except wherein the priority information items are determined based on handover rates or on the numbers of mounted channels off/in the respective neighbor cells. However, Celedon teaches in the same field of endeavor the use of both handoff count data and best candidate count data to determine the rank of various neighbor cells. See paragraphs 15 and 24. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify Smolik to include the additional consideration of handoff rates and best candidate counts (or load rates) in determining the rank of neighbor cells because this would allow for further optimizing of the neighbor list. See Celedon, paragraph 10.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent Nos. 6,400,951 to Vaara teaches a selection of neighbor cells based in part on loading factors and 6,836,471 to Holma et al. teaches a handoff method that considers loading factors in selecting a base station.

Art Unit: 2685

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie E. Stein, Esq. whose telephone number is (571) 272-7897. The examiner can normally be reached on M-F (8:30 am-5:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JES

Nguyen Vo
9-16-2005

**NGUYENT.VO
PRIMARY EXAMINER**